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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,331	04/12/2006	Patrick Fontaine	PF030159	3620

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EXAMINER	
REGO, DOMINIC E	
ART UNIT	PAPER NUMBER
2618	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/575,331	FONTAINE ET AL.	
	Examiner	Art Unit	
	DOMINIC E. REGO	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 December 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-3,5-10,12-14, and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted Prior art in view of Proctor, Jr. et al. (US Patent #6,941,152).

Regarding claim 1, Admitted Prior art teaches method of communication in respect of transmitting/receiving stations in a wireless communication network, in which method first multi-receiver frames are exchanged between a station and a plurality of other stations, the first multi-receiver frames indicating the source and the destination of the transmitting and the receiving station (Page 2, lines 5-8; lines 21-23) and second mono-receiver frames are exchanged between a transmitting station and a receiving station (Page 2, lines 23-24), the first frames being transmitted in an omnidirectional manner (Page 2, lines 25-27), wherein the second frames are transmitted in a directional manner determined by the first multi-receiver frames *(Page 2, lines 17-20: Admitted Prior art teaches after receipt of the CTS frame, the first station dispatches the data to be transferred to the second station in one or more DATA frame in a directional manner. The second station receives the data and dispatches an ACK frame to the first station to signal the correct receipt of the data)*, except in that the transmission in a

omnidirectional manner is effected in a more robust fashion than the transmission in a directional manner.

However, in related art, Proctor, Jr. teaches in that the transmission in a omnidirectional manner is effected in a more robust fashion than the transmission in a directional manner (Col 1, lines 18-48; Col 4, line 59-Col 5, line 33).

Therefore, it would have obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Proctor, Jr. to Admitted prior art in order to reduce interference.

Regarding claim 2, the combination of Admitted prior Art and Proctor, Jr. teach all the claimed elements in claim 1. In addition, Proctor, Jr. teaches method according to claim 1, wherein the most robust transmission is effected at a lower throughput than the least robust transmission (Col 4, line 59-Col 5, line 33).

Regarding claims 3 and 10, the combination of Admitted prior Art and Proctor, Jr. teach all the claimed elements in claim 1. In addition, Proctor, Jr. teaches method, wherein the mono-receiver frames are modulated by a modulation with a first number of phases and in that the multi-receiver frames are modulated by a modulation with a second number of phases, and in that the first number of phases is higher than the second number of phases (Col 4, line 59-Col 5, line 33).

Regarding claims 5 and 12, the combination of Admitted Prior Art and Proctor, Jr. teach all the claimed elements in claim 1. In addition, Proctor, Jr. teaches Method, wherein the mono-receiver frames are coded with a first forward error correction rate

and the multi-receiver frames are coded with a second forward error correction, and in that the first rate is higher than the second rate (Col 4, line 59-Col 5, line 33).

Regarding claims 6 and 13, the combination of Admitted Prior Art and Proctor, Jr. teach all the claimed elements in claims 5 and 12. In addition, Admitted Prior Art teaches method, wherein the mono-receiver frames and the multi-receiver frames are modulated by the same modulation (Page 2, lines 17-36).

Regarding claims 7 and 16, the combination of Admitted Prior Art and Proctor, Jr teach all the claimed elements in claim 1 and 9. In addition, Admitted Prior Art teaches method, wherein the transmission is in compliance with one of the standard belonging to the set comprising: Hiperlan type 2; and IEEE802.11a (Page 1, lines 24-25).

Regarding claims 8 and 17, the combination of Admitted Prior Art and Proctor, Jr teach all the claimed elements in claim 1 and 9. In addition, Admitted Prior Art teaches method, wherein the transmission is in compliance with IEEE 802.11g (Page 1, lines 24-25).

Regarding claim 9, Admitted Prior Art teaches transmitting and/or receiving station for a wireless communication network, wherein said station comprises means to transmit and/or receive multi-receiver frames in an omnidirectional manner indicating the source and the destination of the transmitting and the receiving station *(Page 2, lines 5-8; lines 21-23: Admitted Prior Art teaches first station wishing to dispatch data to a second station sends an RTS frame to all the stations located in its transmission field to reserve their communication medium for a certain duration while indicating the*

source, the destination and the duration of the transaction. The RTS and CTS frames are multi-receiver frames that have to be received by all the stations of the network that are liable to communicate with the two stations) and means to transmit and/or receive mono-receiver frames in a directional manner, determined by the first multi-receiver frames (Page 2, lines 17-20; lines 23-24: *Admitted Prior art teaches after receipt of the CTS frame, the first station dispatches the data to be transferred to the second station in one or more DATA frame in a directional manner. The second station receives the data and dispatches an ACK frame to the first station to signal the correct receipt of the data)*, except the transmission in a omnidirectional manner being effected in a more robust fashion than the transmission in a directional manner.

However, in related art, Proctor, Jr. teaches the transmission in a omnidirectional manner being effected in a more robust fashion than the transmission in a directional manner (Col 1, lines 18-48; Col 4, line 59-Col 5, line 33).

Therefore, it would have obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Proctor, Jr. to Admitted Prior Art in order to reduce interference.

Regarding claim 14, the combination of Admitted Prior Art and Proctor, Jr. teach all the claimed elements in claim 9. In addition, Admitted Prior Art teaches station, wherein it comprises at least one omnidirectional antenna (Page 2, lines 25-27) and one or more directional antennas (Page 2, lines 17-20; lines 23-24: *Admitted Prior art teaches after receipt of the CTS frame, the first station dispatches the data to be transferred to the second station in one or more DATA frame in a directional manner)*

Regarding claim 18, the combination of Admitted Prior Art and Proctor, Jr. teach all the claim element in claim 9. In addition, Proctor, Jr. teaches wireless communication network wherein it comprises several transmitting and/or receiving stations (Figure 2 and Admitted Prior Art, Page 1, lines 33-35).

3. Claims 4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted Prior Art in view of Proctor, Jr. et al. (US Patent #6,941,152) and further in view of Trompower (US Patent #6,132,306).

Regarding claims 4 and 11, the combination of Admitted Prior Art and Proctor, Jr. fails to teach method, wherein the mono-receiver frames are modulated by a modulation with more than two phases and in that the multi-receiver frames are modulated by a two phases modulation.

However, in related art, Trompower teaches method, wherein the mono-receiver frames are modulated by a modulation with more than two phases and in that the multi-receiver frames are modulated by a two phases modulation (Col 11, lines 17-34).

Therefore, it would have obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Trompower to Admitted Prior Art and Proctor, Jr. in order to avoid interference.

4. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted Prior Art in view of Proctor, Jr. et al. (US Patent #6,941,152) and further in view of Pekonen et al. (US Patent #7,092,672).

Regarding claim 15, the combination of Admitted Prior Art and Proctor, Jr. teach all the claimed elements in claim 9, except station, wherein it comprises four directional antennas oriented at 90 degree with respect to one another.

However, in related art, Pekonen teaches station, wherein it comprises four directional antennas oriented at 90 degree with respect to one another (Col 4, lines 35-55).

Therefore, it would have obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Pekonen to Admitted Prior Art and Proctor, Jr. in order to enable the antenna's angle of coverage to be adjusted.

Response to Arguments

5. Applicant's arguments with respect to claims 1-18 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DOMINIC E. REGO whose telephone number is (571)272-8132. The examiner can normally be reached on Monday-Friday, 8:30 am-5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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